

Application No.: 10/594,276

REMARKS

I. Introduction

In response to the pending Office Action, the abstract has been amended to comply with USPTO guidelines. No new matter has been added.

II. The Rejection Of Claims 1-2 Under 35 U.S.C. § 103

Claims 1-2 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Narukawa et al. (USP No. 5,508,122). Applicants respectfully submit that Narukawa fails to render the pending claims obvious for at least the following reasons.

With regard to the present disclosure, amended independent claim 1 recites, in part, a secondary battery comprising a positive electrode plate which has, in a vicinity of a first end at an initial winding side, an exposed portion of the positive electrode current collector having the positive electrode material mixture layer not formed thereon, and a positive electrode lead connected to the exposed portion. In addition, the battery has a first winding turn outwardly adjacent to a connecting portion of the positive electrode lead with the separator interposed therebetween, and a second winding turn outwardly adjacent to the first winding turn with the separator interposed therebetween. Together, the first and second winding turns comprise a portion of the negative electrode plate carrying the negative electrode material mixture layer.

Additionally, claim 2 recites a third winding turn outwardly adjacent to the second winding turn with the separator interposed therebetween comprises a portion of the positive electrode plate carrying the positive electrode material mixture layer.

The Office Action admits that the 1st, 2nd and 3rd winding turns are not taught in Narukawa, but alleges that it would be obvious to adjust the different winding component

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position to have the winding turns of claim 1. However, the Office Action provides no support for this allegation other than by merely saying so. As such, the requisite standard for obviousness has not been demonstrated, that being some sort of rationale for finding the present limitations obvious. Rather, as Narukawa is completely silent with regard to the winding turns disclosed in claim 1 of the present disclosure, it is only by improper hindsight reasoning that the Office Action is able to imbue Narukawa with the properties disclosed in claim 1 of the present disclosure. Moreover, one skilled in the art would not be motivated to construct a battery having negative material that is not contacting positive material as it would not react. Accordingly, it would not be obvious to construct a battery as claimed in claim 1, based on the teachings of Narukawa and general knowledge to one skilled in the art.

Moreover, Narukawa aims to prevent the occurrence of internal short circuits caused due to the lead portions in an electrode plate, and to facilitate the process of fabricating a spiral electrode unit. In Narukawa, either the regions of electrode plates having the same polarity reside via a separator, on both sides of the exposed regions of an electrode core material where leads are established, or only a separator is present on both sides of the exposed regions of an electrode core material where leads are established. For example, Figs. 1 and 2 of Narukawa show that the length from the positive electrode lead to the end of the winding-start side of the negative electrode material mixture layer is adjusted, so as to enable the two features disclosed above.

In contrast, the present disclosure shows a first winding turn outwardly adjacent to a connecting portion of the positive electrode lead with the separator interposed therebetween, and a second winding turn with the separator interposed therebetween, comprise a portion of the negative electrode plate carrying the negative electrode material mixture layer. to enable this

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feature, the positional relation between the positive electrode lead and the end of the winding-start side of the negative electrode material mixture layer, and the positional relation between the end of the winding-start side of the negative electrode material mixture layer and the end of the winding-start side of the positive electrode material mixture layer, are critical.

As mentioned above, Narukawa only shows that the positional relation between the positive electrode lead and the end of the winding-start side of the negative electrode material mixture layer is considered, with no regard to the positional relation between the end of the winding-start side of the negative and positive electrode material mixture layers. As such, based on Narukawa, one skilled in the art would not derive claim 1 of the present disclosure.

Therefore, as is well known, in order to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. As Narukawa does not disclose a secondary battery comprising a positive electrode plate which has, in a vicinity of a first end at an initial winding side, an exposed portion of the positive electrode current collector having the positive electrode material mixture layer not formed thereon, and a positive electrode lead connected to the exposed portion, and wherein a first winding turn outwardly adjacent to a connecting portion of the positive electrode lead with the separator interposed therebetween, and a second winding turn outwardly adjacent to the first winding turn with the separator interposed therebetween, comprise a portion of the negative electrode plate carrying the negative electrode material mixture layer, it is apparent that Narukawa fails to render amended claim 1 or any dependent claims thereon obvious. Accordingly, the Applicants respectfully request that the § 103 rejection be withdrawn.

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III. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as amended claim 1 is patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

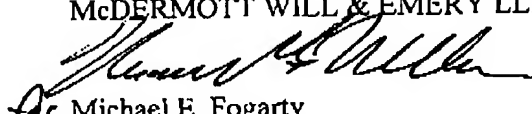
IV. Conclusion

Having responded to all open issues set forth in the Office Action, it is respectfully submitted that all claims are in condition for allowance.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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